REMARKS

THE ALLOWABLE SUBJECT MATTER

Claims 4 and 8-14 stand allowed.

ENTRY OF THE CLAIM AMENDMENTS IS REQUESTED

Claim 2 was objected to as being dependent upon a rejected base claim, but was acknowledged to contain allowable subject matter. Claim 2 has been placed in independent form. Allowance of claim 2 is, therefore, requested.

Claim 8 was amended in accord with the Examiner's suggestion to correct an antecedent basis issue and it is submitted that such amendment does not impact the indicated allowability.

Claims 1 and 7 are amended to include aspects of claim 4, which was allowed, reciting features that are not taught or suggested by the prior art, as . Particularly, claims 1 and 7 are amended to recite that the partition board is configured for translation up and down within said reaction vessel and placement at one of a plurality of positions along said reaction vessel.

It is respectfully submitted that these claim amendments collectively place the application in condition for allowance and entry and allowance thereof is respectfully solicited.

THE 35 U.S.C. § 102(B) AND 103(A) REJECTIONS OF CLAIMS 1 AND 7

Claims 1 and 7 were rejected under 35 U.S.C. § 102(b) as being anticipated by JP 6-316422. Claims 1 and 7 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 6-316422. Reconsideration is requested.

The Examiner alleged JP 6-316422 disclosed an apparatus comprising a reaction vessel, a burner that generates glass particulates, and a bait rod on which the glass particulates are

deposited (Fig. 1) to provide a process wherein combustion gas and raw material is supplied to the tip of the bait rod as it is rotated and drawn upwardly. The Examiner further alleged the prior art reference discloses a partition member or shutter 31 located in the reaction vessel such that the vessel is separated into an upper and a lower part, wherein the partition member "may be provided in a space around the soot preform (Fig. 3)." The Examiner further alleged the apparatus comprises an exhaust port in the side wall below the partition member and a burner disposed below the partition member.

Claim 1 recites equipment for manufacturing a soot preform comprising a reaction vessel, a burner that generates glass particulates, and a starting rod on the tip of or around which said glass particulates are deposited in said reaction vessel, said equipment being further equipped with a partition board which is provided in part of the space around a soot preform in said reaction vessel such that said space is separated into an upper and lower part, an exhaust port is provided below said partition board in the side wall of said reaction vessel, and said burner is positioned in the space below said partition board. Claim 1 additionally recites that the partition board is configured for translation up and down within the reaction vessel and placement at one of a plurality of positions along said reaction vessel.

Under the law of anticipation, "[f]or a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.* 7 USPQ2d 1315, 1317 (Fed. Cir. 1988). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art". *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970); *see also In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995)

(*stating* "[w]hen evaluating the scope of a claim, every limitation in the claim must be considered"); *In re Lowry*, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994); MPEP §§706.02(j); 2142; 2143; 2143.03.

JP 6-316422 does not teach or suggest the claimed reaction vessel wherein a partition board "is provided in part of the space around a soot preform in said reaction vessel such that said space is separated into an upper and lower part". Instead, JP 6-316422 shows a reaction vessel 10 and an attached cylinder 13 into which the preform is withdrawn. Cylinder 13 is an adjunct to the reaction vessel and does not separate the space that would otherwise be used, in a conventional manner, for soot deposition on a soot preform. Moreover, the alleged partition member or shutter 31 relied upon by the Examiner is not configured for translation up and down within the reaction vessel and placement at one of a plurality of positions along said reaction vessel, as claimed, nor is such configuration suggested therein.

With respect to claim 7, JP 6-316422 does not teach or suggest a method for manufacturing a soot preform comprising use of a reaction vessel "having a partition board provided in part of the space between said soot preform and the inner wall of said reaction vessel at a position above an exhaust port and said burner which are provided in the wall of said reaction vessel such that said space is separated into the upper and lower parts." Cylinder 13 of JP 6-316422 does not separate the reaction vessel into upper and lower parts. Instead, as noted above, cylinder 13 is an adjunct to the reaction vessel and does not separate the space that would otherwise be used, in a conventional manner, for soot deposition on a soot preform. Moreover, the alleged partition member or shutter 31 relied upon by the Examiner is not configured for translation up and down within the reaction vessel and placement at one of a plurality of positions along said reaction vessel, as claimed, nor is such configuration suggested therein.

Accordingly, Applicants submit that JP 6-316422 does not teach or suggest each and every element in claims 1 and 7 and does not anticipate the claims under 35 U.S.C. § 102(b) or render said claims obvious under 35 U.S.C. § 103(a). Reconsideration and withdrawal of these rejections are requested.

THE 35 U.S.C. § 103(A) REJECTIONS

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 6-316422.

This rejection is traversed for the same reasons noted above with respect to claim 1 and patentability of claim 3 is premised herein at least upon the asserted grounds for patentability of claim 1. Reconsideration and withdrawal of this 35 U.S.C. § 103(a) rejection of claim 3 is requested for at least this reason.

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 6-316422 in view of JP 5-330845. The cited disclosure of JP 5-330845 fails to make up for the deficiencies in the aforementioned teachings of JP 6-316422 in that JP 5-330845 merely shows a preform 2 disposed in a reaction vessel 3 and does not show a partition board of any sort, let alone a partition board "provided in part of the space around a soot preform in said reaction vessel such that said space is separated into an upper and lower part" and "configured for translation up and down within said reaction vessel and placement at one of a plurality of positions along said reaction vessel".

This rejection is traversed for the same reasons noted above with respect to claim 1 and patentability of claim 5 is premised herein at least upon the asserted grounds for patentability of

claim 1. Reconsideration and withdrawal of this 35 U.S.C. § 103(a) rejection of claim 5 is requested for at least this reason.

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 6-316422 in view of JP 1-106534, JP 1-106534 being cited for a teaching of providing an air inlet "at a position opposite to said exhaust port below said partition board, in the wall of said reaction vessel," as claimed. Applicants submit that the cited disclosure of JP 1-106534 fails to make up for the deficiencies in the aforementioned teachings of JP 6-316422 in that JP 1-106534 does not show a partition board "provided in part of the space around a soot preform in said reaction vessel such that said space is separated into an upper and lower part" and "configured for translation up and down within said reaction vessel and placement at one of a plurality of positions along said reaction vessel".

This rejection is traversed for the same reasons noted above with respect to claim 1 and patentability of claim 6 is premised herein at least upon the asserted grounds for patentability of claim 1. Reconsideration and withdrawal of this 35 U.S.C. § 103(a) rejection of claim 6 is requested for at least this reason.

Allowance of claims 1, 3 and 5-7 is requested further to previously indicated allowance of claims 4 and 8-14 and the indicated allowability of claim 2.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

William D. Pegg
Registration No. 42,988

600 13th Street, N.W.
Washington, DC 20005-3096
(202) 756-8000 WDP:AJS:kap
Facsimile: (202) 756-8087
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